

Site: Martha Rose Chem
ID #: MO980633069
Break: 17.8
Other: 8-20-86

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SUPERFUND RECORDS

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FYI -

Pesticides Tin
Groundwater
& Rose Chemical report.

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"Waivers, on a case-by-case basis or as general policy, could be utilized to encourage development of less toxic pesticides, registration of products useful in integrated pest management programs, and minor use registrations or to lessen economic burdens on small businesses."

Registration may be only the first step in the installation of user fees under FIFRA, OMB said.

It stated, "A more elaborate and all-inclusive fee system, which EPA is considering, would include recouping costs associated with conducting registration standard, special review, and data call-in activities. Costs for conducting these activities might be recovered through annual fees (based on the number of active ingredients produced) prorated and assessed annually on the basic manufacturers of all registered pesticide active ingredients. Another similar approach might factor into the fee schedule the completeness of the pesticide's data base and the level of risk posed by its use. The impact on industry of the annual fee concept and the idea of providing incentives for socially desirable activities will be considered during development of this action."

OMB said a notice of proposed rulemaking for pesticide registration fees will be issued in October with a comment period that ends in January 1987.

Discussion of user fees under TSCA was limited to Section 5, the premanufacture notification provisions. OMB said, "The cost of this review is a legitimate cost of bringing a new chemical substance to market, and it could be at least partially covered by the notice submitters themselves, rather than borne by the general public."

OMB noted that TSCA specifically authorizes user fees for Section 5 that do not exceed \$2,500 per submission or \$100 in the case of a small business.

Section 5 user fees were also suggested as a means to produce safer chemicals. OMB said, "Under one approach, fees might be partially waived for companies that conducted health or environmental effects testing on a new chemical substance. In addition, EPA is considering whether user fees should be charged for exemption notices as well as PMNs."

An advance notice of proposed rulemaking will be issued in December 1986, OMB said.

OMB listed seven regulations that are expected to be final before March 1987 from the Office of Pesticides and Toxic Substances: a revision to the pesticide registration and classification procedures and labeling requirements for pesticides and devices; 2-ethoxyethanol, 2-methoxyethanol and their acetates; dioxin and furan final rule; action concerning commercial and industrial use of asbestos; rulemaking concerning asbestos abatement; pesticide inert ingredient strategy; and a report on scientific and regulatory issues underlying pesticide use patterns and agricultural innovation.

PESTICIDES IN GROUNDWATER: RISING LEVELS, MORE OCCURRENCES SEEN

The levels of pesticides in groundwater and the numbers of occurrences are increasing, George R. Hallberg, Chief, Geological Studies, Iowa Geological Survey, told the conference on agricultural impacts on groundwater held earlier this

month in Omaha, Neb. The conference was sponsored by the National Well Water Association, the American Society of Agronomy, the Crop Science Society of America and the Soil Science Society of America.

An abstract of Hallberg's keynote address for the conference stated, "The long-term public health implications of the coexistence of nitrites, pesticides, and other chemicals is unclear. Some epidemiologic studies suggest patterns of risk that must be considered but, unfortunately, epidemiologic proof often takes a generation of experience" (See separate stories).

Iowa study results presented at the Aug. 11-13 conference included the finding that, in selected public water supply samples taken from alluvial aquifers, over 50% had pesticide residues. This was in a abstract of a paper by Hallberg, C.A. Thompson, and Robert D. Libra, Iowa Geological Survey. The authors noted that they found atrazine in samples throughout the year.

A related finding presented to the conference was that in general in Iowa, pesticide residues are found in water year round. The authors of the paper, "Agricultural Impacts on Ground Water Quality: The Big Spring Basin Study, Iowa," also found that the flow-weighted mean concentrations of atrazine increased over 50% per year over the four years of the study, independent of water flux. The authors: Hallberg, Libra, Bernard E. Hoyer, Associate State Geologist, Iowa Geological Survey, and Lauren C. Johnson, Chief, Pesticides Section of the University Hygienic Laboratory, University of Iowa (See June 25, Page 28; and Aug. 13, Page 35).

Extensive and high atrazine contamination of groundwater in rural Pennsylvania was observed in a paper, "Pesticide Contamination of Ground Water in a Rural Pennsylvania Watershed," presented at the conference. The paper's abstract said sampling was done for atrazine, metolachlor, cyanazine, alachlor and terbufos. The abstract said:

"No alachlor (>0.01 p.p.b.), metolachlor (>0.01 p.p.b.) nor terbufos (>0.001 p.p.b.) was detected. However, atrazine concentrations from 0.008-0.54 p.p.b. were found in 12 of the 18 well samples. The initial findings suggest widespread atrazine contamination of the groundwaters but at extremely low concentrations. Several other contaminants were observed. Upon subsequent analysis, these were found to be simazine in 3 wells and the commonly-used plasticizer, tributyl phosphate (TBP), in 13 wells. Although there was no apparent correlation between the concentrations of TBP and atrazine, 10 of the 18 wells sampled contained both....

"The 18 wells represent three aquifer depths zones (20 ft., alluvium; 40 ft. weathered rock; 100 ft. siltstone and shale), and sample aquifer zones where the % cropped area ranges from 25-100%, the average being about 75%. The wells are fully-cased, sealed with bentonite, and were sampled following a pumping pretreatment that was experimentally designed to provide a representative aquifer sample."

The authors: James B. Urban and Harry B. Pionke, Northeast Watershed Research Center, USDA; and Dwight E. Glotfelty, Soil Nitrogen and Environmental Chemistry Laboratory, USDA.

Iowa researchers found, "With repetitive sampling, 80% of private wells, in susceptible environments, exhibited pesticide residues during a water-year." The paper, "Pesticides in Ground Water in Iowa," stated, "In recent investigations, the herbicides alachlor, atrazine, chloramben, cyanazine, dicamba, metolachlor, metribuzin and 2,4-D, and the insecticides fonofos and terbufos have been detected in Iowa's primary source drinking waters."

The paper concluded that "nitrate concentration is not a good quantitative predictor of pesticide concentrations."

It further concluded, "Collectively, these data suggest that the problem of pesticides in groundwater occurs statewide; there is a relationship between depth of the water supply and the occurrence of pesticides; and, that all 'shallow,' productive aquifers, the most relied upon sources of drinking water in the state, are susceptible to contamination."

The authors: Hallberg, Libra, Johnson, Richard Kelly, Iowa Department of Water, Air, and Waste Management, Roger C. Splinter, University Hygienic Laboratory, University of Iowa, Mark G. DeTroy, U. S. Geological Survey.

The abstract of a paper, "Water Movement Through Soil to Which No-Tillage Cropping Practices have been Continuously Applied," concluded that studies support the "hypothesis that no-tillage crop production practices may contribute to increased groundwater contamination...." The paper's authors: Drs. Warren A. Dick, Ohio State University; William M. Edwards and Faz Haghiri, USDA.

"Agricultural Chemicals and Ground Water -- An Emerging National Concern," by Timothy L. Amsden, EPA Region VII, concluded, "Emerging data indicate increasing concern over possible health consequences of consuming pesticides and nitrates. The rural citizen, who is absolutely dependent on groundwater, is particularly aware and concerned about decreasing groundwater quality."

The abstract of his paper stated, "Almost one in five wells tested by USGS nationwide in 1985 were unnaturally high in nitrates, and pesticides are being discovered more and more in groundwater. Yet America has traditionally not focused on groundwater protection, particularly from agricultural practices."

HERBICIDE BY-PRODUCT CAUSES FETAL MALFORMATIONS, NIEHS SAYS

An industrial byproduct, polychlorinated dibenzofurans (PCDFs), generated in the production of polychlorinated biphenyls, chlorinated benzenes and phenols has been shown to cause fetal abnormalities in mice, scientists from the National Institute of Environmental Health Sciences (NIEHS) stated at a joint meeting of the American Society for Pharmacology and Experimental Therapeutics and the Society of Toxicology Aug. 19.

PCDFs were found to cause the same pattern of abnormalities, cleft palate and kidney abnormalities, detected with dioxin in the mouse model, the scientists said. Although PCDFs have no known industrial or commercial use they are formed in the synthesis of other compounds and have been detected in fly ash and flue gases from incinerators, wood preservatives and wildlife, the meeting report said.

Incidents of human poisoning have also been reported in Japan and Taiwan, where victims consumed contaminated rice oil, the report said. Study of these

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Noting that groundwater has been "the most contentious issue" during FIFRA amendments discussions, Moore said groundwater problems "will be with us for a decade at least" (See separate story and Aug. 13, Page 35). He added:

"We can identify those chemicals likely to be leachers under certain circumstances. And I think we can define a process for better use of those materials."

He predicted more emphasis by EPA on regulation for ecological effects.

"As to more subtle, long-term generational effects," he said, "there remains today a lack of agreement on how to design such a study, let alone how to create it."

LARGEST PESTICIDE EPIDEMIOLOGICAL STUDY EVER UNDERWAY IN CANADA

A five-year epidemiological study of Canadian farmers now underway in that country involves the records of 360,000 individuals.

Results are expected in about three years, although a preliminary description is to appear within a few months in the proceedings of the International Symposium on Health and Safety, held last October in Winnipeg, Canada.

Using Canadian national census and Canadian agricultural census data, the study covers everyone who was a farmer in that country in 1971. In the agricultural census, farmers must report on their use of pesticides, types of crops, whether they applied pesticides themselves or used a custom applicator and other data. Both mortality records and a 10-year follow-up of farmers still alive is contemplated.

Principal investigators are Drs. Leonard Ritter and Donald Wygel of Health and Welfare, Canada. Ritter said the study is asking three basic questions:

(1) Did farmers die at an earlier age than non-farmers? (2) What did they die of? (3) If they died of cancer, what was the anatomical site?

Analytical exposure studies are expected to follow the collection of raw data, according to Ritter, who said investigators have found a "very high compliance" by farmers in their listings of pesticides used.

HOUSE SUBCOMMITTEE SCORES EPA PCB REGULATION

EPA's Region VII was described at a Congressional hearing August 13 as operating with "leniency in interpretation of the regulations and lackadaisical enforcement" that has made it "an attractive area for many PCB treatment, storage and disposal companies, both scrupulous and unscrupulous."

Rep. Synar (D-Okla.) called Region VII "the PCB capital of the world." He is chairman of the House Government Operations Committee's Subcommittee on Environment, Energy & Natural Resources, which titled its hearing, "Review of the (EPA's) Implementation of the Toxic Substances Control Act (TSCA)."

The focal point of the hearing, nevertheless, was EPA Region VII and what Synar termed the "frightening story" of "the country's largest PCB waste site," the Holden, Mo., disposal facility operated until six months ago by Martha C. Rose Chemicals, Inc., a firm that is now involved in involuntary bankruptcy proceedings.

The comments about "lackadaisical enforcement" and "unscrupulous" companies were made by Philip E. Badame, president of Environmental Technology, Inc. (ETI), North Tonawanda, N.Y. Badame testified that ETI was considering taking over the cleanup of the Rose operation earlier this year "as a business venture ...; a very large project with potentially large profits and cash-flow advantages ... The concurrence early on was that ETI's presence and aggressive pursuit of a cleanup funded by the generators of (PCB) waste products at Rose Chemical was welcome and condoned."

"It later became apparent," Badame continued, "that ... EPA Region VII was negotiating with forked tongue where ETI was concerned in order to keep ETI on site and working for nothing while EPA was actually negotiating with the generator committee and Clean Sites, Inc. ... We came away with the distinct impression that EPA Region VII was looking for several scapegoats to divert attention away from themselves. I believe a complete investigation of EPA Region VII is in order. I believe the real blame lies with EPA Region VII and the careless haphazard method in which they enforced the regulations and monitored the permitted sites. I believe that EPA Region VII is fully to blame for the Rose Chemical fiasco."

When Synar asked him how he would compare what he found at the Rose facility with other PCB disposal sites, Badame said he was "shocked. I have never in my life seen so much PCB stored in one place. This is only an estimate, but it's perhaps between 15 and 20 million pounds." Rep. Clinger, Jr. (R-Pa.), the subcommittee's ranking Republican, inquired about PCB-containing capacitor cores, and Badame replied: "I've never seen anything like it ... There was a room about 60 by 100 feet all walled off, with feed bags filled with capacitor cores 30 feet in the air ... 4-1/2 to 5 million pounds of capacitor cores."

Once at the Rose facility, Badame said, he took a shovel and found "oil oozing right up out of the (nearby) creek bed." He also said, "I've heard tales that they were dumping oil down a well on the property," and, "If you think Love Canal was bad ..., if there is ever a fire (at the Rose facility), the dioxin that will be given off will wipe out that entire town."

The mayor of Holden (pop. 2195), Francis Brillhart, was the hearing's first witness, describing his town as "a small, rural community located within 50 miles of Kansas City ... Like most rural communities, we have tried to attract industrial development to provide local jobs and replace the declining number of jobs in the agricultural economy." Brillhart explained that in March 1980 the W. C. Carolan Co. "set up business in a vacant industrial plant in Holden for the purpose of manufacturing emission control devices ... Later, a subsidiary company known as Martha C. Rose Chemicals, Inc., was founded by the owner of the Carolan Company to process PCBs."

Brillhart detailed his increasing concern after Rose employees told of handling hazardous materials, "but the company wouldn't let the city's fire or police departments inspect the property. I personally called EPA several times in 1982 and 1983 about some of the stories workers had told me, and the agency assured ... a close watch on Rose and was periodically inspecting the

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"In 1984 and 1985," Brillhart continued, "more Rose employees were talking about hazardous, unsafe and illegal procedures at the plant. I made a lot of calls to different people at EPA ... and agency spokesmen told me that Rose was a good company and was operating under government guidelines." Now that the PCB disposal operations have been shut down, Brillhart said, "the people of Holden still live with dangerous chemicals stored in their backyard hoping that there won't be another accident (he told of one in October 1983) to threaten their health or environment... It's August of 1986 and we're still looking for some action from EPA to clean up the Rose Chemical Company's Holden plant."

When Synar asked him, "How would you characterize EPA's handling of the situation?" Brillhart said the agency generated "reams of paper and reports, but we haven't seen any action except that they have got security guards" at the site.

The hearing's second witness was Ralph D. Cole, Jr., who had worked in 1983-85 at the Rose PCB facility, ultimately as a supervisor. He described the plant's operations, ending his prepared testimony with the statement that during his employment there "I was instructed to do and perform many things which I now find may have been improper, but at the time I was just following instructions."

Under questioning by subcommittee members, Cole said, "We would change the labels on PCB barrels every time EPA was due to inspect the plant." He said plant officials always seemed to have several days' warning of when EPA inspectors were coming, and then, for three or four days "we'd do nothing but clean the plant... Walt Carolan was supposed to have somebody (at EPA) in his pocket." [Reportedly, Walter C. Carolan is president of the Rose firm and owns several others. Rose Chemicals declined Synar's invitation to present testimony at the hearing "because (the firm) has extremely limited financial resources..."]

Terry G. Tillotson, an auditor and evaluator with the Kansas City Region of the General Accounting Office (GAO), was the third witness. He said that since late June he had been detailed to analyze records relating to the Rose PCB operation. He said his principal assignment was "to examine the financial records relating to (Rose) and attempt to establish whether the company had the ability to pay for all or some of the estimated \$10 million to \$15 million needed to remove and destroy the PCB-contaminated materials from the Holden facility."

Tillotson said he was compelled to make his analysis from partial information because the only records he was able to review were "those which were obtained as a result of an administrative subpoena issued by EPA" for the Rose firm. EPA also sought financial records for three other firms owned by Carolan -- American Steel Works, Dust Suppression Systems, and W. C. Carolan Co. -- but Carolan refused to supply them. Tillotson said Carolan maintained that the three firms "are independent of Rose and, therefore, have no financial obligation to either EPA or the (PCB) generators ... to pay for the removal of those contaminated materials."

Rose "had no officers paid by the company, and no employees," Tillotson said, adding that American Steel Works "actually employed the workforce, and provided the materials to conduct the PCB decontamination operations at the Holden facility." During the 12 months ended Aug. 31, 1984, he said, Rose's books showed cash receipts of about \$2 million and payments of some \$1.5 million, "or 75 percent of its cash receipts," to American Steel Works "for labor, materials, rent, utilities, and other miscellaneous expenses." Without the latter firm's records, Tillotson said, "I cannot comment on the appropriateness of the over-

head charges. However, it seems highly unusual for a company to charge more for overhead than they do for direct labor costs."

With the limited available information, Tillotson said he "was not able to determine whether (Rose) has the ability to pay for all or some of the estimated cleanup costs." Responding to a question from Rep. Colter (D-Pa.), Tillotson said he was compelled to observe that Rose's "was an unusual bookkeeping process."

Led by Region VII Administrator Morris Kay, a phalanx of eight EPA witnesses spent more than two hours at the witness table, most of it answering questions. In his 11-page prepared statement, which he summarized, Kay outlined the "permitting history" of the Rose firm's Holden operation, which began with six-month interim approval to process PCB mineral oil until mid-March 1983, followed by a three-year permit. Rose's application to process PCB capacitors was given six-month interim approval in 1983, followed by a three-year permit effective in October 1983. Rose also received a three-year permit to process PCB transformers starting July 1, 1984.

Discussing the Rose firm's "enforcement history," Kay said an inspection in November 1983 "revealed storage and marking violations. An administrative civil penalty of \$30,000 was assessed ... (but subsequently) a consent agreement reduced the penalty to \$7,000 if the company disposed of all material stored more than one year ..." Kay said that after a follow-up inspection nine months later "determined that the company had failed to comply with the consent agreement," EPA "demanded and received the balance of the \$30,000 penalty." Since the follow-up inspection in August 1984 also revealed new violations, six months later EPA proposed an "administrative civil penalty of \$176,000." In this instance, Rose "documented an inability to pay the entire penalty," Kay explained, so it was reduced to \$94,200, of which \$46,000 "had to be paid in cash" and the balance (\$48,200) "was deferred if the facility came into full compliance."

Kay said EPA conducted "stepped-up inspections from May 1985 into early January 1986" and they "revealed continued violations." After EPA issued a notice of intent to revoke Rose's permits last February, the firm notified the agency in March that "they could not comply, were financially unable to complete closure, and requested an additional 2-1/2 years to come into compliance." Rose's request was denied, Kay said, and "all permits were revoked on July 9, 1986."

The Rose firm's violations of TSCA, the Comprehensive Environmental Response, Compensation & Liability Act ("Superfund"), and the Resource Conservation & Recovery Act (RCRA) "have been referred to the Department of Justice," Kay said, adding that "a number of generators who shipped materials to (Rose) have formed a representative group ... to interact with EPA to assess the responsibilities of the generators, and to pursue means of removing materials from the site and cleanup of the site." He said he is "optimistic that our more aggressive permitting, more frequent inspection program and high priority compliance monitoring and enforcement will prevent any similar situations from occurring."

Attached to Kay's prepared statement was an appendix contrasting TSCA and RCRA regulatory requirements for the disposal of PCBs. After noting that PCBs "are unique ... because Congress specifically designated them for stringent control under (TSCA)," the paper said that EPA recognized in its implementing regulations "that at some time in the future the PCB disposal regulations would be incorporated under RCRA." It said EPA "is currently developing its approach to integrating PCBs under RCRA," but added that this "is not a simple matter" because it "will require consideration of how best to address ... differ-

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ences between the two regulatory programs ... (and) notice and comment rule-making." EPA's John Lehman, director of the Waste Management Division, Office of Solid Waste, said "it will take several years" to bring PCBs under RCRA.

During a lengthy Q&A session, regional counsel David Tripp said EPA is currently negotiating a contract on "the first phase ... for the generators to start removing their PCBs" from the Holden facility, but "at this point there is no commitment on the part of the generators." He estimated the cleanup time "would range from a year to longer."

At one point, Synar noted that his own state (Oklahoma) and Missouri are both in the "tornado belt." He asked Kay, "What's going to happen if a tornado hits? What if vandals start a fire?"

After Kay said he was confident that adequate precautions had been taken, Synar told him, "Your priority ought to be the people of Holden! While you're chasing papers, they're sitting on a powderkeg!" "I tend to agree with you," Kay replied, "I do agree with you." "Then why don't you start removing them?" Synar responded.

Under questioning by Rep. Clinger, who asked if it would be useful to "designate this as an emergency situation," Kay contended that his region "has taken the lead responsibility ... I believe we have the most restrictive PCB requirements in the agency." This prompted Synar to ask, rhetorically, "Are you telling me that Region VII is one of the best?"

EPA's Leo Alderman, chief of Region VII's Toxics & Pesticides Branch, Air & Toxics Division, said that for some types of inspection the agency makes appointments in advance, but enforcement inspections are "by surprise; they're entirely unannounced." Synar then recalled that the former Rose supervisor (Cole) had testified that during his two years at the facility "there were no surprise inspections."

The hearing ended with a discussion of the role of Clean Sites, Inc., and other "third parties" in the resolution of hazardous waste enforcement matters. Synar inserted in the hearing record an April 1986 memorandum on the subject by Richard H. Mays, EPA Assistant Administrator for Enforcement and Compliance Monitoring.

"Considering the sensitivity of the Superfund enforcement program," Mays' memorandum said, "it would seem especially important that any organization or person proposed as a neutral mediator in EPA enforcement matters be free from even the appearance of bias. For these reasons, it may be best not to employ mediators who have had extensive involvement 'coalescing' the PRPs (potentially responsible parties) at a given site, or who derive the bulk of their funding from the chemical waste industry." Mays' memo proposed establishment of "a work group charged with establishing firm guidelines regarding the use of mediation and other ADR techniques in EPA's hazardous waste enforcement cases."

At the hearing's conclusion, Synar told the EPA delegation, "There's a lot of work to be done, and I hope we can work together." He said his subcommittee will make recommendations in a forthcoming report.